

ABSTRACT

Topical cooling of spinal cord, brain, esophagus, etc. can be selectively and continuously carried out under convenient control without causing any changes in internal pressure of spinal cord cavity, brain pressure, etc. by inserting a catheter, which has no hole connecting to the outside and in which a heat-cooling medium is circulated in its inner space to thereby cool a topical site; into the spinal cord, the epidural cavity, the subdural cavity or the subarachnoid cavity of the brain or the esophageal cavity and placing therein and then circulating the heat/cooling medium within the inner space of the catheter; or using a device composed of a heat absorption member in the form of a catheter, a heat insulation member and a heat radiation member, inserting the heat absorption member in the form of a catheter into the spinal cord, the epidural cavity, the subdural cavity or the subarachnoid cavity of the brain or the esophageal cavity and placing therein and then absorbing heat from the heat absorption member and radiating the heat from the heat radiation member via the heat insulation member, thereby contributing to the treatment of spinal diseases including prevention of paraplegia accompanying thoracic aortic aneurysm surgery and the treatment of brain injury, esophageal injury and so on.